

Function Notation

$f(x)$ read "f of x" is function notation that tells the reader for each independent value there is exactly one dependent value.

$f(x)=y$ When you see $f(x)$ this is the same as y .

$y=4x^2$ Is a function so it can be written as $f(x)=4x^2$
* $f(x)$ does NOT mean f times x

Example: Use $f(x) = 4x^2$ for the following

① Evaluate $f(7) \rightarrow$ sub in 7 for x

$$f(x) = 4x^2$$

$$f(7) = 4 \cdot 7^2$$

$$f(7) = 196$$

② Find $f(x) = 16$

This means to find the x -values that work when $y = 16$.

Use the given equation

$$f(x) = 4x^2$$

Substitute in 16 for where $f(x)$ is

$$16 = 4x^2$$

Now solve for x

$$\frac{16}{4} = \frac{4x^2}{4}$$

$$4 = x^2$$

$$\sqrt{4} = \sqrt{x^2}$$

$$\pm 2 = x$$

There are two solutions



